

reTerminal User Manual

Getting Started with reTerminal



Introducing reTerminal, a new member of our reThings family. This future-ready Human-Machine Interface (HMI) device can easily and efficiently work with IoT and cloud systems to unlock endless scenarios at the edge.

reTerminal is powered by a Raspberry Pi Compute Module 4 (CM4) which is a Quad-Core Cortex-A72 CPU running at 1.5GHz and a 5-inch IPS capacitive multi-touch screen with a resolution of 1280 x 720. It has sufficient amount of RAM (4GB) to perform multitasking and also has sufficient amount of eMMC storage (32GB) to install an operating system, enabling fast boot up times and smooth overall experience. It has wireless connectivity with dual-band 2.4GHz/5GHz Wi-Fi and Bluetooth.

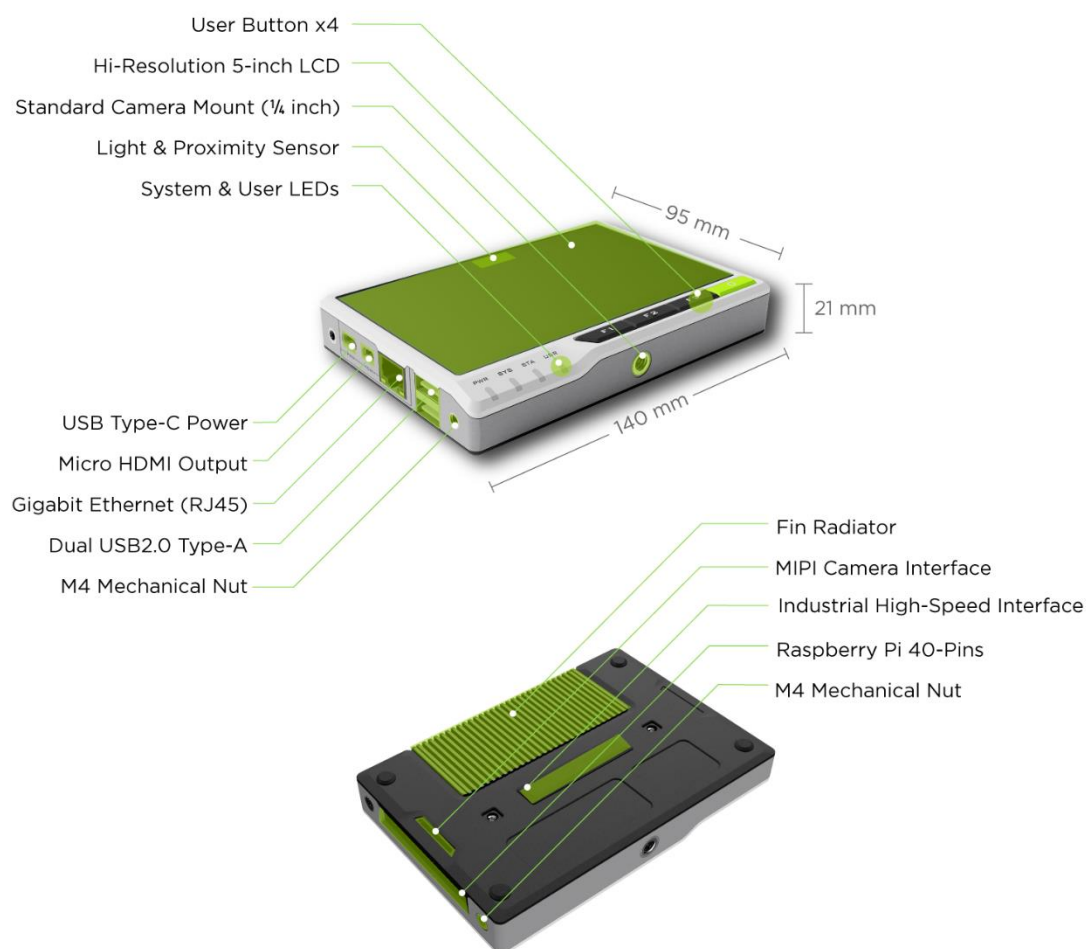
reTerminal consists of a high-speed expansion interface and rich I/O for more expandability. This device has security features such as a cryptographic co-processor with secure hardware-based key storage. It also has built-in modules such as an accelerometer, light sensor and an RTC (Real-Time Clock). reTerminal has a Gigabit Ethernet Port for faster network connections and also has dual USB 2.0 Type-A ports. The 40-pin Raspberry Pi compatible header on the reTerminal opens it for a wide range of IoT applications.

reTerminal is shipped with Raspberry Pi OS out-of-the-box. So, all you have to do is connect it to power and start building your IoT, HMI and Edge AI applications right away

Features

- Integrated modular design with high stability and expandability
- Powered by Raspberry Pi Computer Module 4 with 4GB RAM & 32GB eMMC
- 5-Inch IPS capacitive multi-touch screen at 1280 x 720 and 293 PPI
- Wireless connectivity with dual-band 2.4GHz/5GHz Wi-Fi and Bluetooth
- High-speed expansion interface and rich I/O for more expandability
- Cryptographic co-processor with secure hardware-based key storage
- Built-in modules such as accelerometer, light sensor and RTC
- Gigabit Ethernet Port and Dual USB 2.0 Type-A ports
- 40-Pin Raspberry Pi compatible header for IoT applications

Hardware Overview



Quick Start with reTerminal

If you want to get started with the reTerminal in the most fastest and easiest way, you can follow the guide below.

Hardware Required

You need to prepare the following hardware before getting started with reTerminal reTerminal

Ethernet cable or Wi-Fi connection

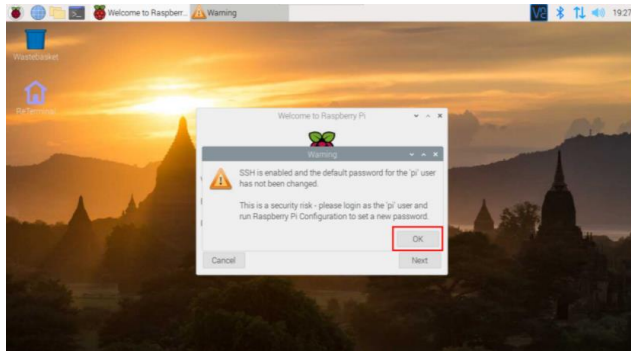
- Power adapter (5V/4A)
- USB Type-C cable

Software Required-Log in to Raspberry Pi OS

reTerminal comes with Raspberry Pi OS pre-installed out-of-the-box. So we can turn on the reTerminal and log in to Raspberry Pi OS straight away!

Step 1. Connect one end of a USB Type-C cable to the reTerminal and the other end to a power adapter (5V/4A)

Step 2. Once the Raspberry Pi OS is booted up, press **OK** for the **Warning** window



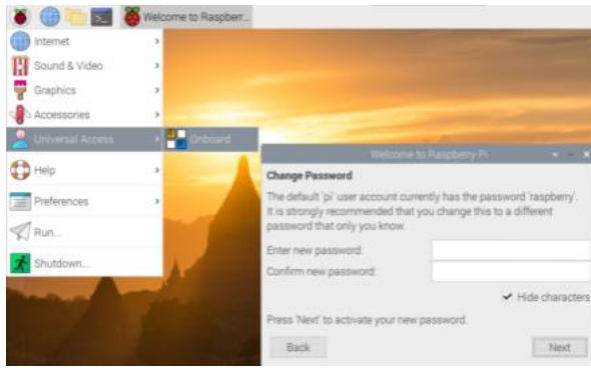
Step 3. In the **Welcome to Raspberry Pi** window, press **Next** to get started with the initial set up



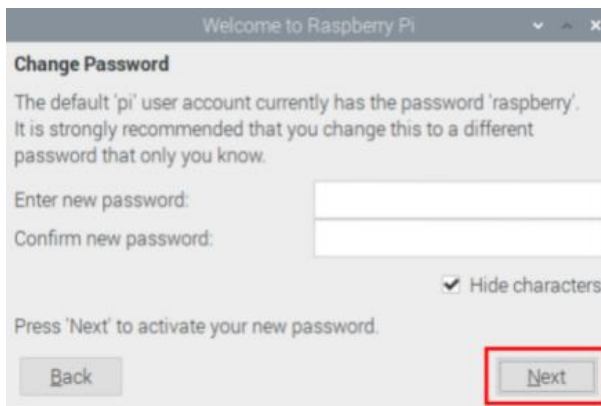
Step 4. Choose your country, language, timezone and press Next



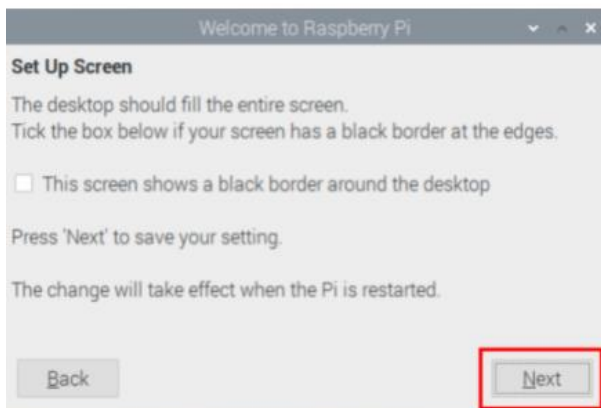
Step 5. To change the password, first click on **Raspberry Pi** icon, navigate to Universal Access > Onboard to open the on-screen keyboard



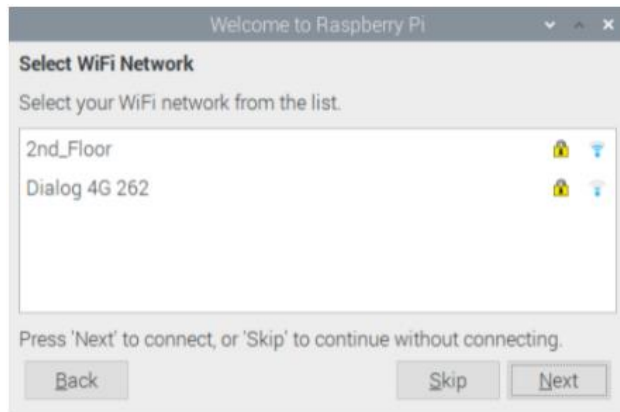
Step 6. Enter your desired password and click **Next**



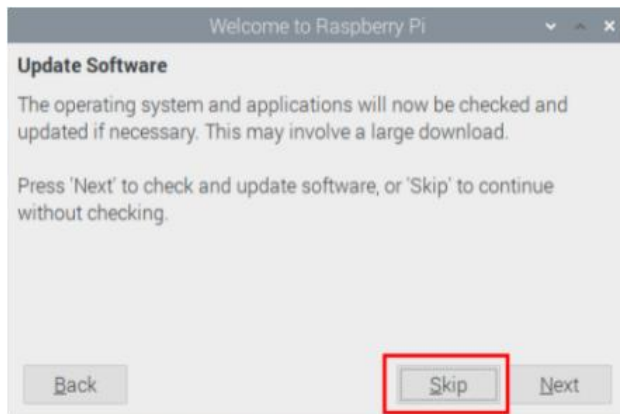
Step 7. Click **Next** for the following



Step 8. If you want to connect to a WiFi network, you can choose a network, connect to it and press **Next**. However, if you want to set it later, you can press **Skip**



Step 9. This step is very important. You should make sure to press **Skip** to skip updating the software.



Step 10. Finally press **Done** to finish the set up

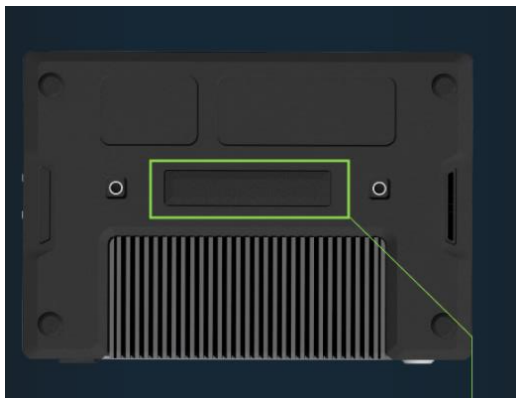


Note: The button on the top left corner can be used to turn on the reTerminal after shutting down using software



Tip: If you want to experience the Raspberry Pi OS on a bigger screen, you can connect a display to the micro-HDMI port of the reTerminal and also connect a keyboard and a mouse to the USB ports of the reTerminal

Tip: the following 2 interfaces are reserved.



Warning

The users manual or instruction manual shall include the following statement in a prominent location in the text of the manual:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.